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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,057	01/18/2000	Keun-Ho Shin	P55955	9201

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EXAMINER
PAYNE, DAVID C

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/484,057	SHIN, KEUN-HO	
	Examiner	Art Unit	
	David C. Payne	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3 and 4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3, 4, 5, 6, 9, and 11 rejected under 35 U.S.C. 102(e) as being anticipated by Shimojoh et al. US6344914 (Shimojoh).

Re claim 1, Shimojoh disclosed An optical filter, comprising,

an input unit for receiving a wavelength division multiplexed (WDM) (e.g., ll: 6/5 - 15) optical signal via an optical transmission medium and outputting a plurality of optical signals that have different incidence angles according to the wavelengths each of said plurality of optical signals; and

a filter (e.g., figure 3 (20))for receiving said plurality of optical signals from the input unit and separating the WDM optical signal into a plurality of optical signals having different wavelengths using the difference between resonance lengths according to the different incidence angles (e.g., ll: 6/40-65).

Re claims 3 and 11, Shimojoh disclosed an Fabry-Perot Etalon filter (e.g., ll: 6/40-65).

Re claims 4, 5, 6 and 9, Shimojoh disclosed

an optical channel monitoring apparatus, comprising:

an optical filter for receiving a wavelength division multiplexed (WDM) (e.g., ll: 6/5 - 15) optical signal from an optical transmission medium, making the incidence angle of each wavelength of the WDM optical signal different from each other, and separating the WDM optical signal into a plurality of optical signals having different wavelengths using the difference between resonance lengths according to the different incidence angles (e.g., ll: 6/40-65) and a detector for detecting the intensity of each of said plurality of optical signals having different wavelengths as an electrical signal (figure 3, (14)).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 8, 10, 12, 13, 14, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimojoh et al. US6344914 (Shimojoh).

Re claims 7, 10 and 15, Shimojoh disclosed the aforementioned apparatus along with a erbium doped amplifier which amplifies signals prior to the detector. Although, Shimojoh does not disclose the intended purpose of the amplifier or the proximity to the photodetector, it would have been obvious to one of ordinary skill in the art at the time of invention that the claimed invention is not distinguishable above the prior art since the Shimojoh amplifier does amplify signals that reach the photodetector and amplification before or after the filter still achieves the same result of amplification of signals, i.e., movement of the amplifier in this case does not make the present invention patentable.

Re claim 8 and 13, Shimojoh disclosed a controller (figure 3 (16)) but does not define it as a microprocessor. However, it would have been obvious to one of ordinary skill in the art at the time of invention that a controller is a more general term for a microprocessor in that they both control an electronic circuit. The signals from the PD are input to the controller.

Re claim 12 and 14, Shimojoh disclosed a controller (figure 3 (16)) that adjust the signal to noise ratio (e.g., ll: 14/1-10) but does not define it as a microprocessor. However, it would have been obvious to one of ordinary skill in the art at the time of invention that a controller is a more general term for a microprocessor in that they both control an electronic circuit.

Re claim 16, Shimojoh disclosed an Fabry-Perot Etalon filter (e.g., ll: 6/40-65).

5. Claims 1, 2, 4, 5, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duck et al. US5808763 (Duck).

Regarding claim 1, Duck disclosed:

An optical filter, comprising,

an input unit for receiving a wavelength division multiplexed (WDM) (figure 1 B(λ1λ2λ3λ4), figure 3 B(λ1λ2λ3λ4)) optical signal via an optical transmission medium and outputting a plurality of optical signals that have different incidence angles according to the wavelengths each of said plurality of optical signals; and

a filter (e.g., figure 1 (12) , figure 3 (12)) for receiving said plurality of optical signals from the input unit and separating the WDM optical signal into a plurality of optical signals having different wavelengths.

Duck does not disclose separation of wavelengths using the difference between resonance lengths according to the different incidence angles. However it would have been obvious to one of ordinary skill in the art at the time of invention that the difference in wavelengths correspond to different resonant lengths and that the figures shown in Duck, both prior art and the present figures illustrate wavelengths having different angles of incidence on a filter.

Regarding claim 2, Duck disclosed in figure 1 a lens (7) used as an input to the filter.

Regarding claims 4, 5, 6 and 9, Duck disclosed

An optical channel monitoring apparatus (figure 3), comprising:

an optical filter (figure 3, (12)) for receiving a wavelength division multiplexed (WDM) optical signal from an optical transmission medium, making the incidence angle of each wavelength of the WDM optical signal different from each other (θ1,θ3), and separating the WDM optical signal into a plurality signals having different wavelengths (λ1λ2λ3λ4).

a detector (14) for detecting the intensity of each of said plurality of optical signals having different wavelengths as an electrical signal .

Duck does not disclose separation of wavelengths using the difference between resonance lengths according to the different incidence angles. However it would have been obvious to one of ordinary skill in the art at the time of invention that the difference in wavelengths correspond to different resonant lengths and that the figures shown in Duck, both prior art and the present figures illustrate wavelengths having different angles of incidence on a filter.

Duck does not disclose separation of wavelengths using the difference between resonance lengths according to the different incidence angles. However it would have been obvious to one of ordinary skill in the art at the time of invention that the difference in wavelengths correspond to different resonant lengths and that the figures shown in Duck, both prior art and the present figures illustrate wavelengths having different angles of incidence on a filter.

Shimojoh disclose the use of a monitoring device (figure 3) comprising a Fabry-Perot etalon (figure 4, ll: 6/40 -50)
It would have been obvious to one of ordinary skill in the art at the time of invention to use the same component of Shimojoh in the Duck apparatus to obtain the claimed invention.
The

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

dcp
September 26, 2002

LESLIE PASCAL
PRIMARY EXAMINER